

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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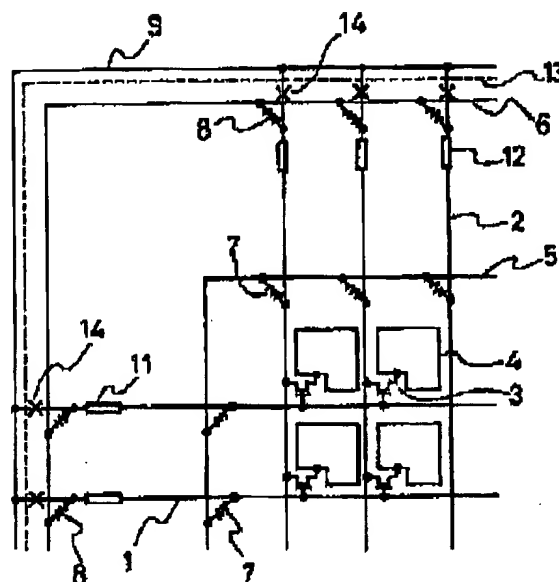
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APPLICANT : HITACHI DEVICE ENG CO LTD;

INVENTOR : OOGIICHI KIMITOSHI;

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TITLE : LIQUID CRYSTAL DISPLAY  
SUBSTRATE AND LIQUID CRYSTAL  
DISPLAY DEVICE



**ABSTRACT :** **PROBLEM TO BE SOLVED:** To reduce the occurrence of a defect due to static electricity by doubly arranging common wiring connected through a gate line or a drain line, a nonlinear resistance element and arranging one side common wiring in the vicinity of a terminal electrode causing invasion of electricity.

**SOLUTION:** The first common wiring 5 respectively connecting a gate line 1 group and a drain line 2 group through a first nonlinear resistance element 7 consisting of e.g. a bi-directional TFT diode is arranged and formed on the outside of a display area. Further, the second common wiring 6 respectively connecting the gate line 1 group and the drain line 2 group through a second nonlinear resistance element 8 consisting of e.g. the bi-directional TFT diode is arranged and formed on the outside of the first common wiring 5. Further, short circuit wiring 9 short-circuiting the gate line 1 group and the drain line 2 group is arranged and formed on the outside of the second common wiring 6. Further, terminal electrodes 11, 12 are formed respectively on the gate line 1 group and the drain line 2 group between the first common wiring 5 and the second common wiring 6.

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